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FRONT COVER:
Mark Peters of Grant County (Wash.) Public Utility District won the 1986 PUBLIC POWER photo contest with his shot of lineman Scott Rogers installing an aircraft ball on the Grand Coulee/Midway 230-kV tap. For other winners, see page 24.

City facilities in Fort Morgan, Colo., portray fictitious Palmer Electric in the new energy services video. See page 15.

San Antonio, Texas, will host APPA's 44th annual National Conference May 18-20. See page 54.

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Public Power Bond Issues Totalled $21.4 Billion in '86

LOCAL PUBLICLY OWNED ELECTRIC utilities issued $21.4 billion worth of electric revenue bonds in 1986. This was 7.8 percent less than the record $23.2 billion in 1985, which had been more than double the $10.2 billion sold in 1984.

All tax-exempt revenue bond sales, according to preliminary calculations, decreased by 35.3 percent, as compared with 1985, to a tentative total of $101.2 billion in 1986.

Public power revenue bonds amounted to 18.7 percent of all tax-exempt bonds sold in 1986, compared with 21 percent in 1985 and 10.9 percent in 1984, according to the annual Shearson Lehman Bros. compilation of tax-exempt bonds. Data came from THE BOND BUYER and Securities Data Co.

Twenty-two joint-action agencies accounted for 44.4 percent—$9.5 billion—of the $21.4 billion public power bond total, as compared with 57.8 percent in 1985.

The public power agency which issued the largest amount of bonds last year, $2.45 billion, was Intermountain Power Agency in Utah. One other joint-action agency, the Southern California Public Power Authority, issued more than $1 billion in bonds last year. Six joint-action agencies had each issued more than $1 billion in revenue bonds in 1985.

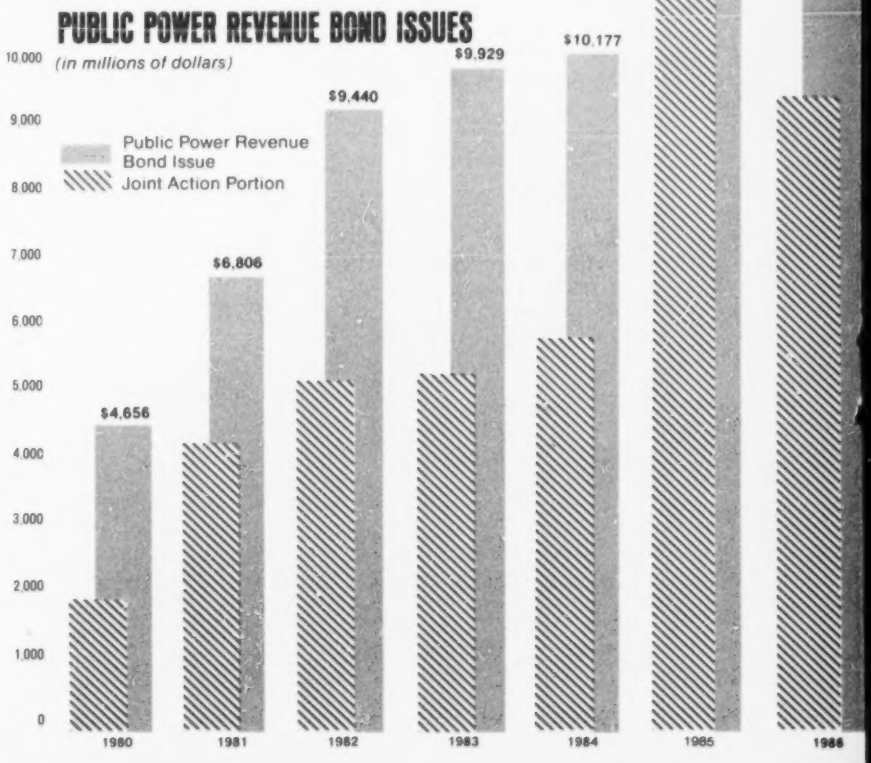
The 12-year total of electric bonds issued by 34 joint-action agencies is $53.7 billion, an increase of 22.6 percent in one year over the $43.9 billion they issued during the previous 11 years.

The total of 286 public power bond issues last year included 50 in the first quarter, 73 in the second, 101 in the third and 62 in the fourth.

Most of the public power revenue bond transactions in 1986 were negotiated, rather than competitive, according to THE BOND BUYER.

Total Bonds Issued by Joint-Action Public Power Systems

Issuer	1975-1986 Total (000)
Alabama Municipal Electric Authority	$139,000
Connecticut Municipal Electric Energy Cooperative	217,210
Florida Municipal Power Agency	788,985
Heartland Consumers Power District (SD)	360,640
Indiana Municipal Power Agency	336,950
Intermountain Power Agency (Utah)	10,774,433
Kansas Municipal Energy Agency	26,639
Louisiana Energy & Power Authority	240,745
Massachusetts Municipal Electric System	26,100
Massachusetts Municipal Wholesale Electric Co.	1,327,570
Michigan Public Power Agency	1,045,150
Michigan South Central Power Agency	187,530
Mississippi Municipal Energy Agency	3,300
M-S-R Public Power Agency (Cal.)	935,045
Municipal Electric Authority of Georgia	4,419,583
Municipal Energy Agency of Nebraska	41,045
North Carolina Municipal Power Agency No. 1	3,633,410
North Carolina Eastern Municipal Power Agency	4,011,950
Northern California Power Agency	2,985,630
Northern Municipal Power Agency (Minn.)	487,650
Oklahoma Municipal Power Authority	415,815
Piedmont Municipal Power Agency (S.C.)	2,474,020
Platte River Power Authority (Colo.)	1,166,520
Sam Rayburn Municipal Power Agency (Texas)	499,085
City of Sikeston, Mo.	250,000
Southern California Public Power Authority	4,532,905
Southern Minnesota Municipal Power Agency	1,070,165
Texas Municipal Power Agency	2,044,730
United Minnesota Municipal Power Agency	64,500
Utah Associated Municipal Power Systems	184,543
Vermont Public Power Supply System	59,235
Washington Public Power Supply System	8,120,000
Western Minnesota Municipal Power Agency	528,550
Wyoming Municipal Power Agency	21,540
12-Year Total	**$53,757,123**



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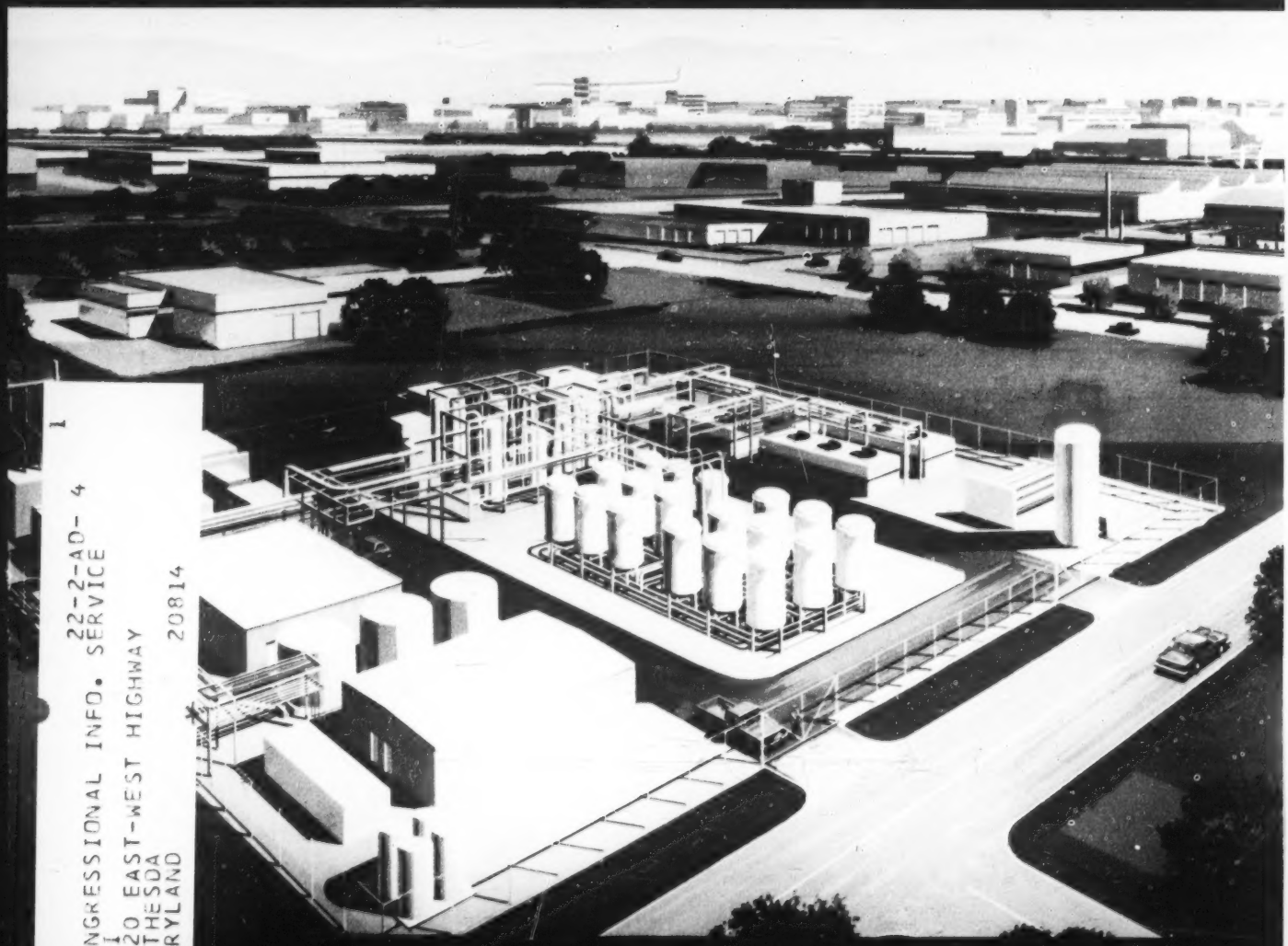

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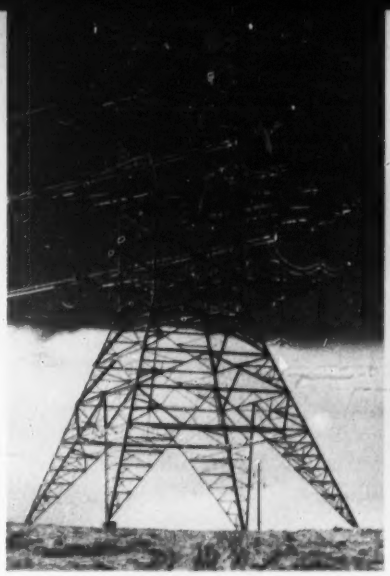
Commercial Fuel Cells Within Reach p. 20

APPA ANNUAL REPORT
opposite page 58

FRONT COVER:
The first of several 11-MW fuel cells should be on-line by 1990. The first of this issue's three articles about them begins on page 20.



Power sold over long distances heats competition in the electric power industry. See page 34.

Competition for electric power service is expanding door-to-door in Cleveland, Ohio. See page 10.

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by *Larry Hobart*
Recognize and analyze political problems, then work on them.

76 The Other Side
by *Vic Reinemer*
Variety spices door-to-door competition between municipals and private utilities in 10 states.

TECHNOLOGY

20 The Fuel Cell Power Plant
Lawrence M. Handley explains why this new generating option attracts utilities. Jeffrey A. Serfass tells about the imminent demonstration of 11-MW units. Then Michael K. Bergman reviews APPA's lead role in developing fuel cell technology.

75 Innovation Update
by *Larry Bruneel*
Remote meters pay off for Missouri joint-action agency; North Little Rock, Ark., using epicyclic design in hydroturbine gear drive; North York, Ontario, customers can pay electric bills at libraries.

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Participants in the Engineering and Operations Workshop heard how to gain the competitive edge.

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Customer attitudes shape demand-side planning and peak-leveling.

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Adherence to standards for integrity can be more important than meeting technical requirements. The American Society for Public Administration suggests 12 criteria.

MONEY

50 Public Power Costs Less
Residential consumers of public power paid an average of 29 percent less per kWh than customers of private utilities paid in 1985.

SAFETY

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57 Say Cheese!
New photo contest begins.

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by *Jennifer Sacks*
APPA-NRECA territorial disputes task force meets; Legislative and Resolutions Committee recommends campaign finance reform, increase in nuclear liability coverage and opposition to sale of power marketing administrations.

DEPARTMENTS

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PUBLIC POWER COSTS LESS

Residential Rates Averaged 29% Below IOUs'

LATEST FIGURES RELEASED by the U.S. Department of Energy (DOE), along with information on public power systems in the Tennessee Valley, show that customers of the nation's local publicly owned electric utilities enjoy average electric rates that are 22 percent lower than those paid by customers of privately owned electric companies. Public power systems' average revenue per kWh of sales to ultimate customers was 5.22 cents in 1985 while IOUs' average revenue was 6.70 cents.

Comparative statistics for 1985 are derived from the just-published DOE report, *Financial Statistics of Selected Electric Utilities in the United States—1985*, and supplemented here with data published in the *TVA Power Program Summary, Volume II*. The DOE report is a continuation of the annual electric utility industry statistical series begun by the former Federal Power Commission (FPC) in 1946. Each report has shown that local public power led the pluralistic electric utility industry in providing consumers with lower-cost electricity.

The DOE statistics for 1985 cover 178 private power companies and 162 local publicly owned utilities. Public power data is supplemented by data on 110 Tennessee Valley municipal systems that were previously included in the DOE and FPC reports published before 1979. The public power systems included in the DOE and TVA reports represent 70 percent of the kilowatt-hour sales of public systems. The DOE data for IOUs cover 99 percent of investor-owned utility (IOU) sales.

SALES TO RESIDENTIAL CONSUMERS

	Average Annual kWh Consumption		*Average Revenue Per kWh (cents)*	
	Private	*Public*	*Private*	*Public*
1946	1,298	1,739	3.29	2.32
1950	1,767	2,518	2.95	1.99
1955	2,573	3,824	2.76	1.69
1960	3,454	5,208	2.62	1.58
1965	4,618	6,634	2.39	1.53
1966	4,931	7,007	2.34	1.50
1967	5,220	7,317	2.31	1.49
1968	5,706	7,880	2.28	1.47
1969	6,246	8,546	2.21	1.45
1970	6,700	9,015	2.22	1.47
1971	7,039	9,378	2.32	1.56
1972	7,391	9,630	2.42	1.63
1973	7,742	10,080	2.54	1.70
1974	7,550	9,797	3.10	1.94
1975	7,830	10,125	3.51	2.33
1976	7,840	9,539	3.78	2.79
1977	8,256	10,791	4.06	2.79
1978	8,453	11,383	4.31	3.00
1979	8,319	10,940	4.64	3.22
1980	8,531	10,744	5.36	3.77
1981	8,277	10,391	6.20	4.32
1982	8,252	10,188	6.83	4.74
1983	8,366	10,389	7.17	5.03
1984	8,556	10,344	7.54	5.29
1985	8,540	10,362	7.80	5.57

SALES TO COMMERCIAL AND INDUSTRIAL CONSUMERS

	Average Annual kWh Consumption		*Average Revenue Per kWh (cents)*	
	Private	*Public*	*Private*	*Public*
1946	28,110	22,475	1.50	1.29
1950	33,653	25,124	1.54	1.33
1955	49,038	38,329	1.45	1.19
1960	61,944	49,421	1.49	1.22
1965	79,201	66,396	1.40	1.18
1966	85,265	70,557	1.37	1.16
1967	89,347	74,373	1.37	1.16
1968	96,332	79,687	1.36	1.15
1969	102,965	85,683	1.36	1.15
1970	107,041	89,653	1.40	1.17
1971	110,973	92,778	1.50	1.26
1972	117,793	98,384	1.58	1.31
1973	124,082	103,785	1.68	1.40
1974	121,112	102,974	2.19	1.64
1975	119,381	110,076	2.62	1.97
1976	125,296	111,414	2.82	2.38
1977	130,602	124,331	3.12	2.38
1978	132,610	129,874	3.39	2.65
1979	133,355	129,342	3.66	2.88
1980	129,499	124,586	4.38	3.41
1981	129,022	126,429	5.07	3.88
1982	122,096	127,807	5.72	4.31
1983	124,308	126,815	5.79	4.48
1984	132,214	128,801	5.97	4.62
1985	130,853	128,097	6.14	4.92

2.23¢ per kWh Difference

Residential consumers of public systems paid an average of 2.23 cents, or 29 percent, less for each kWh used in 1985 than customers of private utilities. This represents little change from last year when public power customers paid 2.25 cents (29.7 percent) less. Or, to phrase it differently, average residential rates paid by private power customers were 40 percent higher than the average paid by customers of public systems.

The average kWh cost to public power's residential customers was 5.57 cents, compared with 7.80 cents for IOU customers. As a result, although the average residential customer of public power systems consumed 21 percent more electricity (10,362 kWh) in 1985 than the average residential customer of private utilities (8,540 kWh), the public system customers' bills averaged 15 percent less.

The cost of electricity increased in 1985 for residential customers of both publicly and privately owned utilities. The average per kWh cost for public power customers rose from 5.29 cents in 1984 to 5.57 cents in 1985; the cost for IOU residential power climbed from 7.54 cents to 7.80 cents.

In 1985 the cost for a kilowatt-hour of electricity sold to commercial and industrial customers was 20 percent less in publicly owned systems than in investor-owned systems. The average revenue per

kWh sold by public systems to commercial and industrial customers was 4.92 cents, up from 4.62 cents in 1984. The cost of power for commercial and industrial customers of IOUs increased from 5.97 cents in 1984 to 6.14 cents in 1985.

IOU Expenses Higher

Production expense of public power was 28.9 mills per kWh sold in 1985 compared with private companies' 29.5 mills. Over the year this expense increased 2.6 mills for public systems and 0.3 mills for IOUs. Distribution expense was $62.04 per customer for public systems in 1985 and $60.53 for private companies. Distribution expenses for the companies were 2.6 mills per kWh sold to ultimate customers, compared with 2.4 mills per kWh sold to ultimate customers by the public systems.

Transmission expense was 1.0 mills per kWh in 1985 for publicly owned systems and 0.7 mills for private companies.

On the basis of kWh sales, accounting and collections cost the companies 1.2 mills per kWh compared with 0.7 mills per kWh for publicly owned companies.

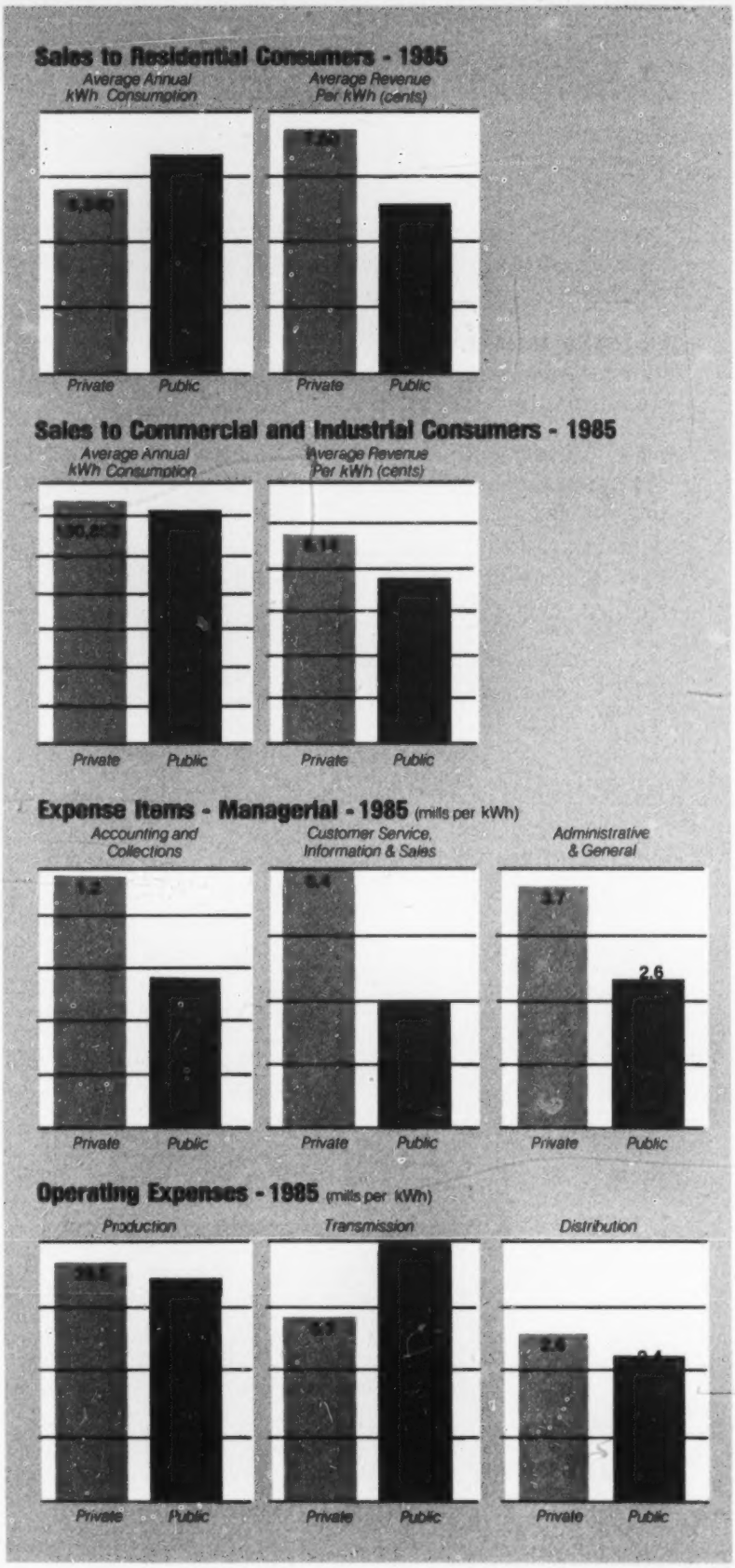
Accounting and collections expenses for 1985 were $26.02 per customer for publicly owned systems compared with $33.31 for private utilities. Over the year these expenses increased 86 cents for public systems and $1.50 for IOUs.

In 1985 the private power companies spent 63 cents of each $100 of revenue for customer service, information and sales expenses (previously reported as promotion and advertising expenses), up one cent from 1984; the publicly owned systems spent 33 cents of each $100 of revenue for this item—up seven cents from the previous year.

Customer service, information and sales expenses were $5.53 per customer for publicly owned systems compared with $11.22 for private companies. Over the year these expenses increased $1.32 for public systems and 51 cents for IOUs.

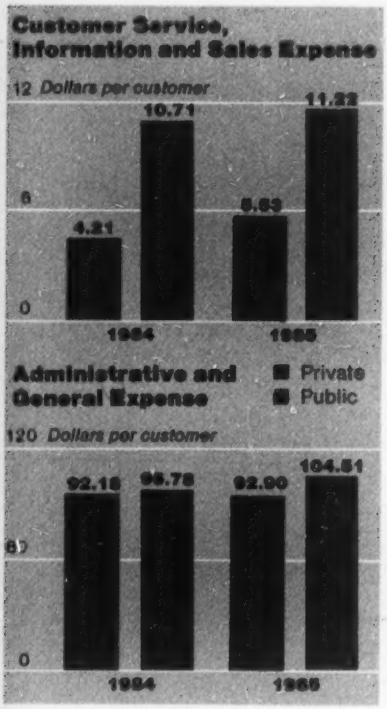
Administrative and general expenses reported by the public systems were lower than private power companies' on the basis of expenses per $100 of revenue ($5.51 to $5.85), and on the basis of kWh sold (2.6 mills per kWh for the publicly owned systems compared with 3.7 mills per kWh for the companies).

Administrative and general expenses were $92.90 per customer for publicly owned systems compared with $104.51 per customer for private companies. Over the year these expenses increased 72 cents for public systems and $8.73 for IOUs.



Private companies' profits accounted for 0.88 cents of their 6.70 cents average revenue per kWh sales to ultimate customers, or 13 percent of the average revenue per kWh sold. IOU dividends on common and preferred stock were 0.58 cents per kWh sold to ultimate customers in 1985.

These latest statistical reports indicate that in 1985, as in the previous four decades during which comparable data was collected, local publicly owned electric utilities led private power companies in providing economical electric service to consumers.



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Your ad in PUBLIC POWER magazine reaches:

- All of the nation's 2,200 publicly owned electric utilities
- All of the 927 rural electric cooperatives
- All 12 federal power agencies.

That's a mighty *powerful* market

EXPENSE ITEMS

OPERATIONS

	Production per kWh Sold (in mills)		Transmission per kWh Sold (in mills)		Distribution per Customer (in dollars)	
	Private	Public	Private	Public	Private	Public
1946	4.35	4.30	.27	.14	$9.37	$9.19
1950	4.96	4.68	.26	.13	12.04	11.77
1955	4.42	4.68	.26	.13	14.18	13.79
1960	4.20	4.70	.25	.15	16.19	10.24
1965	3.98	4.34	.21	.15	17.48	17.93
1966	4.01	4.36	.21	.16	17.84	18.54
1967	4.03	4.31	.21	.15	18.67	19.37
1968	4.09	4.16	.21	.15	19.31	20.43
1969	4.21	4.23	.22	.13	20.56	22.88
1970	4.76	4.61	.23	.15	22.14	24.15
1971	5.49	5.25	.24	.16	22.82	25.41
1972	5.97	5.71	.25	.16	24.13	26.02
1973	6.70	6.47	.26	.17	25.52	27.53
1974	10.72	8.01	.29	.18	26.46	29.98
1975	12.70	9.35	.31	.21	27.63	31.78
1976	13.73	12.04	.34	.29	29.51	34.18
1977	15.87	13.28	.35	.54	31.76	33.78
1978	17.27	14.37	.37	.64	34.81	35.94
1979	19.69	16.32	.40	.67	37.68	38.17
1980	24.14	20.16	.43	.68	41.90	44.83
1981	27.89	23.53	.48	.81	45.19	48.97
1982	29.00	24.64	.56	.86	50.62	53.80
1983	28.55	25.85	.60	.92	54.06	57.36
1984	29.20	26.26	.64	.95	57.71	59.43
1985	29.52	28.91	.69	1.01	60.53	62.04

MANAGERIAL

	Accounting and Collections Per Customer		Customer Service, Information and Sales Per $100 Revenue		Administrative and General Per $100 Revenue	
	Private	Public	Private	Public	Private	Public
1946	$3.73	$2.82	$1.77	$1.03	$7.22	$6.11
1950	4.44	3.35	1.79	1.11	7.90	6.85
1955	5.33	4.00	1.73	.95	6.73	6.59
1960	6.38	4.94	1.70	1.04	6.29	6.31
1965	7.06	6.15	1.79	1.14	6.23	5.80
1966	7.18	6.13	1.83	1.09	6.00	5.84
1967	7.34	6.48	1.79	1.10	5.87	6.23
1968	7.68	6.78	1.75	1.10	5.70	6.10
1969	8.11	7.36	1.69	1.08	5.74	6.08
1970	8.86	7.98	1.54	1.01	5.87	6.25
1971	9.61	8.77	1.30	.89	5.84	6.06
1972	10.31	9.18	1.00	.80	5.88	5.96
1973	11.33	9.55	.74	.67	5.78	5.79
1974	13.26	10.61	.42	.50	5.19	5.65
1975	15.25	12.33	.30	.35	4.98	5.14
1976	16.34	14.50	.27*	.28	4.99	5.09
1977	17.17	12.75	.36	.22	4.94	4.68
1978	18.59	15.87	.36	.22	5.11	4.64
1979	20.25	16.41	.38	.29	5.21	4.24
1980	22.51	18.40	.37	.28	5.08	4.45
1981	25.82	20.87	.42	.31	5.05	4.22
1982	28.97	23.33	.50	.29	5.42	5.17
1983	30.08	24.47	.58	.28	5.57	5.19
1984	31.82	25.16	.62	.26	5.54	5.69
1985	33.31	26.02	.63	.33	5.85	5.51

(*) "Customer Service, Information and Sales" was formerly listed as "Promotion and Advertising." The 1976 and subsequent figures reflect a federal reporting change which combined sales expenses with customer service and information expenses.

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FRONT COVER:
Four double-circuit 230-kV transmission lines cross the Toronto, Ontario, metropolitan area, east to west, between Ontario Hydro transformer stations.
Photos by Harry James, Ontario Hydro

Breakthroughs in superconducting temperature may alter a lot of things, especially electric utilities. See pages 6, 11, 15.

Experts differ regarding health effects of power lines. The articles on the subject—and utilities' role—begin on page 18.

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For Public Power Week plans, see page 52.

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by *Larry Hobart*
If we get by the hurdles, superconductor prospects are enormous.

72 The Other Side
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Watch the legislature, so your head does not roll.

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Arthur L. Robinson explains what happened in the labs, and Dan Lewis looks at *future* utility application.

71 Innovation Update
by *Larry Bruneel*
Seattle improves hot-line tester; Port Colbourn, Ontario, outfoxes meter-muggers; Sacramento broadens meter functions.

MONEY

56 Public Power Contributes More
Public power pays an average of 7.1 percent of electric operating revenue to state and local governments; private utilities average 6.3 percent.

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Probably so, says Andrew A. Marino. Probably not, counters H.B. Graves. EPRI reports latest research results, and John P. O'Grady tells how Ontario Hydro deals with the issue.

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by *Kathleen Sheekey*
Apply presidential campaign financing system to Congress through S. 2.

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35 The Salt River Cavalry
by *Douglas G. Schema*
Horses and mules provide the most practical transporiation in parts of Arizona.

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by *Jeanne Wickline LaBella*
APPA's annual gathering gives public power officials a chance to take the industry's pulse.

42 APPA Honors Achievers
Two systems and 11 individuals receive coveted awards.

48 Energy Innovators Win Awards
Sioux Center, Iowa; Grant County (Wash.) PUD; Fort Collins, Colo.; Santee Cooper and PowerManager developers honored.

52 Plans Popping for Public Power Week *by Pat Logie*
"We in public power have a lot to celebrate."

70 Inside APPA
by *Jennifer Sacks*
Fuel cell demonstration approved; DEED grants awarded; publications updated; fall meetings slated.

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Public Power Contributes More

Sketch by A. J. Toos

MUNICIPALLY OWNED ELECTRIC utilities in the United States contribute proportionately more to the coffers of state and local governments than do privately owned electric companies.

During 1985, the latest year for which statistics are available, municipally owned utilities paid an average of 7.1 percent of their electric operating revenues to state and local governments, while privately owned companies paid 6.3 percent.

Tax data for municipal systems include direct and indirect payments to state and local governments—taxes, tax equivalents such as in-lieu-of-tax-payments and transfers to general funds, and contributed services such as free or subsidized energy for government buildings and operations.

Tax data for investor-owned systems include all utility taxes paid to state and local governments. Tax data for publicly and privately owned utilities exclude federal social security payments and contributions to federal and state unemployment insurance programs.

The averages in the accompanying table are weighted averages of state and local tax payments as a percent of total electric operation revenue.

Taxes and Tax Equivalents Paid by Municipal and Investor-Owned Electric Utilities in the United States

Average percent of electric operating revenues paid to state and local governments

Region	Publicly Owned *(number of systems reporting in parentheses)*	Privately Owned *(number of systems reporting in parentheses)*
NORTHEAST Conn., Maine, Mass., N.H., N.J., N.Y., Pa., R.I., Vt.	4.1% (74)	9.7% (45)
ATLANTIC D.C., Del., Fla., Ga., Md., N.C., S.C., Va., W.Va.	10.1% (85)	5.4% (22)
EAST NORTH CENTRAL Ill., Ind., Mich., Ohio, Wis.	4.0% (116)	7.3% (36)
EAST SOUTH CENTRAL[1] Ala., Ky., Miss., Tenn.	6.8% (123)	3.8% (9)
WEST NORTH CENTRAL Iowa, Kan., Minn., Mo., Neb., N.D., S.D	4.4% (228)	7.4% (19)
WEST SOUTH CENTRAL Ark., La., Okla., Texas	11.5% (44)	3.7% (16)
MOUNTAIN Colo., Mont., N.M., Utah, Wyo.	8.2% (32)	4.1% (4)
PACIFIC NORTHWEST Alaska, Idaho, Ore., Wash.	7.9% (51)	5.6% (5)
PACIFIC SOUTHWEST Ariz., Cal., Nev.	4.9% (21)	3.0% (7)
OTHER Hawaii [2]	— (0)	9.1% (1)
U.S. AVERAGE Total number of systems reporting	7.1% (774)	6.3% (164)

SOURCES: APPA 1985 "Survey of Publicly Owned Electric Systems", "Tennessee Valley Authority Power Program Summary, Volume 2, 1985", and Federal Energy Regulatory Commission Form 1: Annual Reports of Major Privately Owned Electric Systems, 1985.

[1] Includes TVA in-lieu-of-tax-payments to governments of municipal systems that distribute TVA power. All municipal systems in Tennessee and approximately half of the systems in Alabama, Kentucky and Mississippi distribute TVA power.
[2] There is no publicly owned electric system in Hawaii.

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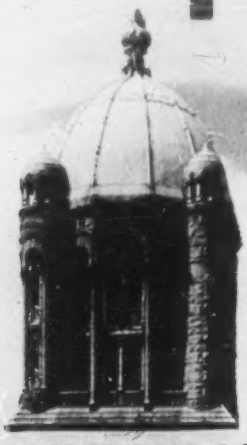
SEPTEMBER-OCTOBER 1987



TAUNTON MUNICIPAL LIGHTING PLANT

SERVING A PUBLIC POWER COMMUNITY

PUBLIC POWER WEEK OCT. 4-10

CONGRESSIONAL INFO. SERVICE
SRI
4520 EAST-WEST HIGHWAY
BETHESDA
MARYLAND 20814
22-2-AD- 4
1

FRONT COVER:
Taunton (Mass.) Municipal Lighting Plant began preparation for Public Power Week (Oct. 4-10) by hoisting a banner in front of the Bristol County Courthouse.
Photo by Josh Levine

Where's the beef? It's in Luverne, Minn., and other public power towns bringing in new jobs. See page 10. Photo by Vic Reinemer

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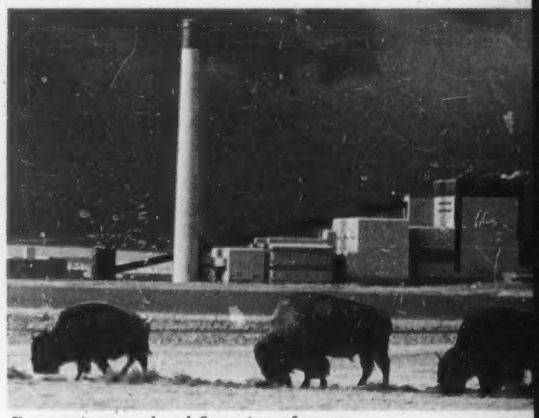

For a primer on bond financing of power plants and transmission lines see the Platte River Power Authority story, page 68.

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Comparing Governing Boards

by **JEFF TARBERT**, *contributing editor,* PUBLIC POWER, *and* APPA *director of management services*

WHICH IS THE BETTER form of governance for public power systems—the city council or an independent utility board? A recent survey does not answer, but illuminates, that question.

Like the people in the TV beer commercial—evenly divided between those who say it "tastes great" and those who say "less filing,"—municipal electric utilities are almost evenly divided between those governed by a city or town body (usually the council) or by an independent board, authority or commission whose sole role is making utility policy.

Table 1 of the recent APPA "Survey of Administrative and Policymaking Organization of Publicly Owned Electric Utilities"* shows that a few more utilities report to independent boards (54 percent) than to city councils (46 percent).

The survey is conducted periodically by APPA—the last was in 1982—to determine the type of control local governments exercise over public power systems. As with any survey, not all participants answer every question. The results here apply to the 496 utility respondents and may not precisely reflect the results if all systems participated.

The breakdowns by utility size and type of controlling body in Table 1 suggest that members of independent boards are about twice as likely to be appointed as elected. Other information from the survey shows that, of those appointed, 8 percent were appointed by the mayor, 39 percent by the city governing body, and 53 percent by the mayor with the city governing body's approval.

Then there are variations. For example, Jonesboro (Ark.) City Water and Light has a 16-member board comprised of both elected and appointed officials.

(*) The survey is available from the APPA *Publications Department at $15 for members, $25 for nonmembers.*

Both Can Work Well

As to which type of governance is best, the independent board or city council, the short answer is that both can work fine. Each type has pros and cons, and ultimately the community itself must decide which is best for it.

Some persons argue that—due to the complexity of the issues, long lead times on decisions, and large budgets involving electric power systems—city councils do not have time to give utility concerns adequate attention, because of all the other city business that comes before them. Others argue that the council may be more responsive to the public, and better able to integrate city and utility issues—such as economic development, rates and levels of service—into overall community planning.

Seattle (Wash.) City Light, serving more than 300,000 customers, has a mayor/council form of government, with the utility reporting to the mayor as chief executive and the council as the legislative body. City Light Superintendent Randy Hardy likes this setup for several reasons. With the mayor elected every four years and council serving staggered terms, Hardy finds stability in policy direction. Since the mayor and council must address various issues, he said, they tend to be generalists with "little time or inclination to get involved in the day-to-day management of the utility." Hardy says this situation helps the mayor and council focus on what they do best—set policy—while he runs the utility.

Ely and Kissimmee Switched

Two public power systems recently switched from city council to independent authority governance.

Oversight of the Ely (Minn.) Water and Light Department (2,000 meters) was transferred April 1 from the council to a five-member public utility commission. This move, according to Commission Chairman Larry Klun, received voters' approval based on their desire to separate utility financial operations from city funding activities and establish a governing body that devoted full time to utility issues.

The Kissimmee (Fla.) Utilities Authority (22,000 meters) was established in 1985. Previously the electric system reported to the city commission (equivalent to a city council). Citizens and city commissioners (two of whom were ini-

TABLE 1 Profile of Survey Respondents
(number of responses in parentheses)

Controlling Body	*Less than 5,000 Meters*	*5,000 to 15,000 Meters*	*More than 15,000 Meters*	*Total*
City Governing Board	54% (144)	38% (50)	36% (35)	46% (229)
Independent Utility Board				
Elected	15% (41)	17% (22)	22% (22)	17% (85)
Appointed	31% (81)	45% (60)	42% (41)	37% (182)
Total	100% (266)	100% (132)	100% (98)	100% (496)

TABLE 2 Exercise of Specific Powers and Authorities
(number of responses in parentheses)

Authorities	City Governing Board Control			Independent Utility Board Control		
	City Governing Board	Independent Utility Board*	Other**	City Governing Board	Independent Utility Board*	Other**
Set retail electric rates						
More than 15,000 meters	86% (30)	3% (1)	11% (4)	8% (5)	76% (48)	16% (10)
Less than 15,000 meters	86% (165)	5% (10)	9% (18)	8% (17)	76% (154)	16% (32)
Issue long-term bonds						
More than 15,000 meters	94% (32)	— (0)	6% (2)	32% (20)	56% (35)	11% (7)
Less than 15,000 meters	93% (176)	3% (5)	5% (9)	36% (73)	51% (103)	12% (23)
Make short-term loans						
More than 15,000 meters	94% (32)	— (0)	6% (2)	31% (19)	58% (36)	11% (7)
Less than 15,000 meters	93% (176)	3% (6)	4% (8)	35% (69)	54% (107)	12% (23)
Approve utility budget						
More than 15,000 meters	89% (31)	3% (1)	9% (3)	8% (5)	87% (54)	5% (3)
Less than 15,000 meters	93% (180)	7% (13)	1% (1)	6% (13)	89% (181)	4% (9)
Exercise right of eminent domain						
More than 15,000 meters	89% (31)	3% (1)	9% (3)	25% (15)	67% (40)	8% (5)
Less than 15,000 meters	90% (168)	5% (10)	4% (8)	36% (69)	53% (102)	12% (23)

*Some electric systems regulated primarily by city councils are subject in some respects to authority of other local boards.
**"Other" authorities include state utility commissions, which regulate municipal electric systems in some states.

TABLE 3 Utilities Making Direct or Indirect Payments to Local Governments
(number of responses in parentheses)

	City Utility Board	Independent Governing Board	Total
More than 15,000 Meters			
Direct	91% (32)	90% (57)	91% (89)
Indirect	31% (11)	29% (18)	30% (29)
Less than 15,000 Meters			
Direct	74% (143)	75% (152)	74% (295)
Indirect	65% (126)	52% (107)	59% (233)
Total			
Direct	76% (175)	78% (209)	77% (384)
Indirect	60% (137)	47% (125)	53% (262)

tially named to the authority for a specified transition period) strongly favored the change, said Chairman Bruce Van Meter, for the following reasons:

- the utility gains greater flexibility in policymaking and a buffer from direct involvement in the political process;
- utility wages can be separated from the city scale and thus be more competitive in the appropriate markets;
- five-year staggered terms should increase board stability; and
- greater attention can be given to appointing members with skills (such as a business background) needed to oversee sophisticated utility operations.

Whether you think it "tastes great" or is "less filling," the APPA survey does point up differences in the two forms of governance. Table 2 shows the difference in power and authority exercised by councils and boards. In the five areas selected for comparison (rate setting, issuing long-term bonds, approving short-term borrowing, exercising eminent domain, and budget approval) most city governing bodies (74 percent) held all of these powers. Only 35 percent of the independent boards exercised all of the specific powers listed, and in many cases substantial authority remains with the council in the areas of bonds, short-term loans and eminent domain.

Replacement Funds Sought

Contributions (taxes and tax equivalents) from the utility to the city general fund and indirect payments (free or subsidized services) are areas of high interest to city and utility officials. The amount of these transfers may become more of an issue between public power systems and city governments as the full effect of the loss of federal revenue-sharing is felt. A recent National League of Cities poll showed that one-third of those municipalities responding expected a decrease in general fund revenues this year, and 20 percent were cutting expenditures. To counter this reduced flow of dollars, city leaders may look to electric operations for supplements.

The survey showed 96 percent of all respondents made some payments to local governments in 1985. Table 3 breaks down these payments by utility size and type of governance.

The questions of size of payments and the way they are determined point up

TABLE 4 Average Taxes and Tax Equivalents *vs.* Percent of Electric Operating Revenue, by Size of Utility and Type of Controlling Board*
(number of responses in parentheses)

Number of Meters	City Governing Board	Independent Utility Board Elected	Independent Utility Board Appointed	Total
More than 15,000	9.9% (31)	4.2% (19)	8.9% (38)	8.3% (88)
5,000 to 15,000	8.7% (39)	3.1% (18)	5.1% (56)	6.0% (113)
Less than 5,000	9.7% (75)	3.6% (20)	5.6% (56)	7.1% (151)
Total	9.6% (145)	4.0% (57)	8.0% (150)	7.8% (352)

*Supplemented by APPA's annual "Survey of Publicly Owned Electric Systems" and Tennessee Valley Authority's "Power Program Summary, Volume II."

some differences between councils and independent boards. Table 4 lists tax-equivalent and other payments as a percentage of electric revenues by utility size and type. On average, public power systems paid 7.8 percent* of electric operating revenues to local governments. Utilities reporting to city councils paid on average proportionately more than those governed by independent boards. Boards comprised of appointed officials contributed more to local governments than did those boards whose members were elected.

Payment Formulas Vary

Various methods are used to determine the size of these payments. Some payments are set by formula while others are negotiated each year or arbitrarily determined. Tables 5 and 6 show how payments are determined by type of controlling body and by size of utility. Independent utility boards seem more prone to use specific formulas when setting these contributions (by almost two to one) than do city governing bodies (which are split evenly between arbitrary and formula determinations). Eighty-three percent of the larger utilities (15,000 or more meters) use a formula for these contributions while only half of the smaller systems do.

Some public power systems transfer, to paraphrase one respondent, "whatever the city needs to balance the budget." In others the governing body determines what it feels is reasonable and yet leaves the utility with sufficient resources to maintain the system properly and keep an appropriate reserve. Formulas variously employ percentages of net or total revenue, net plant, kWh sales and other measurements.

The Fayetteville (N.C.) Public Works Commission transfers 25 percent of net earnings less the value of services provided to the city. Freemont (Neb.) Department of Utilities Manager Jon McCafferty reported his utility makes no cash transfer but instead provides free street and traffic lights, and electric and water service to all municipal buildings. The value of these services is listed as an expense item on the income statement. Jonesboro, Ark., mentioned earlier, transfers a fixed sum each year, provides free electric services to the city and bills for other city services.

TABLE 5 Determination of Payments by Type of Control
(number of responses in parentheses)

Type of Payment	City Governing Board	Independent Utility Board
Arbitrary Amount	49% (60)	35% (29)
Formula		
% of Electric Revenues	15% (19)	23% (19)
% of Total Revenues	19% (23)	17% (14)
% of Net Income	11% (14)	15% (13)
% of Equity or Surplus	5% (6)	8% (7)
Other	1% (1)	2% (2)
Total	100% (123)	100% (84)

TABLE 6 Determination of Payments by Size of Utility
(number of responses in parentheses)

Type of Payment	More than 15,000 meters	Less than 15,000 meters
Arbitrary Amount	17% (6)	49% (83)
Formula		
% of Electric Revenues	39% (14)	14% (24)
% of Total Revenues	19% (7)	18% (30)
% of Net Income	14% (5)	13% (22)
% of Equity or Surplus	11% (4)	5% (9)
Other	— (0)	2% (3)
Total	100% (36)	100% (171)

**Data from this survey differ slightly from similar data published in "Public Power Contributes More" (PUBLIC POWER, July/August 1987, p. 56) due to a larger number of respondents to the earlier survey.*

The Austin (Texas) Electric Utility takes great care in analyzing the amount ($45.5 million in 1986) it transfers each year. Starting with the last year's transfer, based on a percentage of sales, Austin officials make an estimate related to projected sales changes for the coming year. Then, according to Budget and Financial Planning Director David Kasper, this projected figure is measured for impact against certain financial operating ratios, such as debt coverage, cash as a percent of construction expenditures, payout ratio, and cash coverage. If, with the proposed transfers, these ratios are in line with average ratios of a number of comparable utilities, the amount of the proposed transfer is deemed appropriate.

Billing For Services Differs

Another area showing differences between independent boards and councils involves billing the local government for services provided. Forty-five percent of the public power systems under independent board control billed for *all* of the following services: traffic signals, water pumping, energy use at municipal buildings, streetlights and other services. Only 30 percent of the systems governed by councils billed for all functions surveyed.

Table 7 shows the percentage of utilities that billed the local government for specific services listed. The table suggests that larger utilities were more likely than smaller utilities to bill for specific services.

Most individuals (85 percent) serving on public power governing bodies are paid—some more than others. None get rich. Average annual compensation for public power policy officials paid monthly or annually is $2,407. For those compensated on a per-meeting basis, the national average is $41 per meeting.

Table 8 shows it is slightly more lucrative to be involved in public service on a city council than an independent utility board, as would be expected because of councils' other duties, and that larger systems or cities pay their policymakers more than smaller ones do. Table 9 lists compensation on a per meeting basis.

So which form of governance is best? J.D. Brown, former APPA deputy executive director, had a good answer: "Some of our friends are councils, some of our friends are boards. We're for our friends."

TABLE 7 Percentage of Utilities That Billed the General Government for Services*

(number of responses in parentheses)

	City Governing Board	Independent Utility Board
More than 15,000 meters		
Traffic signals	82% (27)	86% (51)
Water pumping	94% (30)	91% (53)
Energy used at municipal buildings	91% (32)	94% (59)
Street lighting	80% (28)	92% (58)
Other city services	90% (26)	91% (50)
Less than 15,000 meters		
Traffic signals	55% (86)	71% (127)
Water pumping	76% (136)	85% (154)
Energy used at municipal buildings	75% (137)	90% (179)
Streetlighting	63% (118)	73% (144)
Other city services	67% (109)	77% (128)

*Percentage represents proportion of all utilities that responded to the particular question.

TABLE 8 Average Annual Compensation*

(number of responses in parentheses)

		Independent Utility Board		
Number of Meters	City Governing Board	Elected	Appointed	Total
More than 15,000	$8,193 (24)	$5,524 (14)	$1,850 (24)	$5,135 (62)
Less than 15,000	$2,196 (112)	$1,832 (29)	$974 (90)	$1,674 (231)
Total	$3,254 (136)	$3,034 (43)	$1,159 (114)	$2,407 (293)

*Data were reported on annual and monthly bases; monthly data converted to annual basis.

TABLE 9 Average Payment per Meeting for Boards Compensated on a Per-meeting Basis

(number of responses in parentheses)

		Independent Utility Board		
Number of Meters	City Governing Board	Elected	Appointed	Total
More than 15,000	$30 (2)	$45 (4)	$41 (5)	$41 (11)
Less than 15,000	$32 (36)	$62 (19)	$37 (26)	$41 (81)
Total	$32 (38)	$59 (23)	$38 (31)	$41 (92)